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=> FIL STNGUIDE

COST IN U.S. DOLLARS SINCE FILE TOTAL

FULL ESTIMATED COST ENTRY SESSION 0.21 0.21

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=> FIL HOME

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 0.06 0.27

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=> file biosis medline caplus wpids uspatfull

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION 0.21 0.48

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FILE 'USPATFULL' ENTERED AT 08:55:24 ON 11 JAN 2005
CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

*** YOU HAVE NEW MAIL ***

=> s nucleic acid? (5a) immobil?(5a) (substrate? or support?)

3 FILES SEARCHED...

4 FILES SEARCHED...

L1 4506 NUCLEIC ACID? (5A) IMMOBIL?(5A) (SUBSTRATE? OR SUPPORT?)

=> s 11 and unsatur?

L2 146 L1 AND UNSATUR?

=> s 12 and (thymine or uracil)

L3 82 L2 AND (THYMINE OR URACIL)

=> s 13 and 3 (5a) 100

L4 41 L3 AND 3 (5A) 100

```
=> s 14 and electromagnet?
            8 L4 AND ELECTROMAGNET?
=> dup rem
ENTER L# LIST OR (END):15
PROCESSING COMPLETED FOR L5
              8 DUP REM L5 (0 DUPLICATES REMOVED)
=> d 16 bib abs 1-8
     ANSWER 1 OF 8 USPATFULL on STN
       2004:280265 USPATFULL
AN
       Oligonucleotides useful for detecting and analyzing nucleic acids of
ΤI
       interest
       Kauppinen, Sakari, Smorum, DENMARK
IN
       Alsbo, Carsten, Koge, DENMARK
       Nielsen, Peter S., Birkerod, DENMARK
       Jeffares, Daniel C., Kobenhavn N, DENMARK
       Mourier, Tobias, Kobenhavn N, DENMARK
       Mork, Soren, Valby, DENMARK
       Arctander, Peter, Askeby, DENMARK
       Tommerup, Niels, Albertslund, DENMARK
       Tolstrup, Niels, Klampenborg, DENMARK
       Vissing, Henrik, Virum, DENMARK
       US 2004219565
                          A1
                               20041104
PΙ
       US 2003-690487
                               20031021 (10)
ΑI
                          Α1
       DK 2003-752
                           20030519
PRAI
       US 2002-420278P
                           20021021 (60)
DT
       Utility
FS
       APPLICATION
       CLARK & ELBING LLP, 101 FEDERAL STREET, BOSTON, MA, 02110
LREP
CLMN
       Number of Claims: 184
       Exemplary Claim: 1
ECL
DRWN
       48 Drawing Page(s)
LN.CNT 14594
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention features improved nucleic acids and methods for expression
AB
       profiling of mRNAs, identifying and profiling of particular mRNA splice
       variants, and detecting mutations, deletions, or duplications of
       particular exons or other splice variants, e.g., alterations associated
       with a disease such as cancer, in a nucleic acid sample, e.g., a
       biological sample or a patient sample.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 2 OF 8 USPATFULL on STN
L6
ΑN
       2003:318633 USPATFULL
       Novel LNA compositions and uses thereof
ΤI
       Wengel, Jesper, Odense S, DENMARK
IN
       Kauppinen, Sakari, Smoerum, DENMARK
       US 2003224377
                          Α1
                               20031204
ΡI
ΑI
       US 2002-235683
                          A1
                                20020904 (10)
PRAI
       US 2001-317034P
                           20010904 (60)
       US 2001-323967P
                           20010922 (60)
DT
       Utility
FS
       APPLICATION
       CLARK & ELBING LLP, 101 FEDERAL STREET, BOSTON, MA, 02110
LREP
CLMN
       Number of Claims: 43
ECL
       Exemplary Claim: 1
DRWN
       2 Drawing Page(s)
```

LN.CNT 3757

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Modified LNA units are provided that comprises unique base groups.

Desirable nucleobase and nucleosidic base substitutions can mediate universal hybridization when incorporated into nucleic acid strands. The novel LNA compounds may be used in a wide variety of applications, such as PCR primers, sequencing, synthesis of antisense oligonucleotides, diagnostics and the like.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 3 OF 8 USPATFULL on STN AN 2003:112863 USPATFULL

TI Methods and compositions for enhancing sensitivity in the analysis of biological-based assays

IN Van Ness, Jeffrey, Seattle, WA, UNITED STATES
Tabone, John C., Bothell, CA, UNITED STATES
Howbert, J. Jeffry, Bellevue, WA, UNITED STATES
Mulligan, John T., Seattle, WA, UNITED STATES

PA QIAGEN Genomics, Inc., Bothell, WA (U.S. corporation)

PI US 2003077595 A1 20030424 US 6815212 B2 20041109

AI US 2001-467 A1 20011024 (10)

RLI Continuation of Ser. No. US 1999-457048, filed on 7 Dec 1999, ABANDONED Continuation of Ser. No. US 1997-898501, filed on 22 Jul 1997, GRANTED, Pat. No. US 6027890 Continuation-in-part of Ser. No. US 1997-787521, filed on 22 Jan 1997, ABANDONED

PRAI US 1996-10436P 19960123 (60) US 1996-15402P 19960321 (60)

DT Utility

FS APPLICATION

LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092

CLMN Number of Claims: 61

ECL Exemplary Claim: 1

DRWN 36 Drawing Page(s)

LN.CNT 5954

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods are provided for detecting the binding of a first member to a second member of a ligand pair, comprising the steps of (a) combining a set of first tagged members with a biological sample which may contain one or more second members, under conditions, and for a time sufficient to permit binding of a first member to a second member, wherein said tag is correlative with a particular first member and detectable by non-fluorescent spectrometry, or potentiometry, (b) separating bound first and second members from unbound members, (c) cleaving the tag from the tagged first member, and (d) detecting the tag by non-fluorescent spectrometry, or potentiometry, and therefrom detecting the binding of the first member to the second member.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L6 ANSWER 4 OF 8 USPATFULL on STN
```

AN 2002:32175 USPATFULL

TI Immobilized nucleic acid and method for detecting nucleic acid

IN Kimura, Naoki, Chiba-shi, JAPAN Ichihara, Tatsuo, Chiba-shi, JAPAN Moriya, Shogo, Chiba-shi, JAPAN

PI US 2002018996 A1 20020214 AI US 2001-771043 A1 20010126 (9)

PRAI JP 2000-21843 20000126

DT Utility

FS APPLICATION

KNOBBE MARTENS OLSON & BEAR LLP, 620 NEWPORT CENTER DRIVE, SIXTEENTH LREP FLOOR, NEWPORT BEACH, CA, 92660 Number of Claims: 12 CLMN Exemplary Claim: 1 ECL DRWN No Drawings LN.CNT 774 CAS INDEXING IS AVAILABLE FOR THIS PATENT. A nucleic acid to be immobilized and used for hybridization of nucleic acids using an immobilized nucleic acid, which has a polymer comprising a compound having an unsaturated bond, said polymer being bonded to the 3' end or 5' end or both ends of the nucleic acid; a nucleic acid-immobilized substrate comprising a substrate for immobilizing a nucleic acid and the polymer-having nucleic acid immobilized on the substrate; and a method for detecting a nucleic acid by hybridization using an immobilized nucleic acid, which comprises using the nucleic acid-immobilized substrate. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L6 ANSWER 5 OF 8 USPATFULL on STN AN 2002:209300 USPATFULL TΙ Use of LNA in mass spectrometry Simmons, Adrian, Amersham, UNITED KINGDOM IN Smith, Clifford, Tring, UNITED KINGDOM PA Exiqon A/S, Vedback, DENMARK (non-U.S. corporation) PΙ US 6436640 В1 20020820 ΑI US 2000-528705 20000318 (9) DK 1999-381 19990318 PRAI US 1999-127357P 19990401 (60) Utility DTFS GRANTED EXNAM Primary Examiner: Horlick, Kenneth R. Corless, Peter F., Rees, Dianne M., Edwards & Angell, LLP LREP CLMN Number of Claims: 17 ECL Exemplary Claim: 1 DRWN 0 Drawing Figure(s); 0 Drawing Page(s) LN.CNT 2507 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DNA and RNA diagnostics based on mass spectrometry, e.g. Matrix-Assisted AB Laser Desorption/Ionisation Time-of-Flight (MALDI-TOF) mass spectrometry, Electrospray (ES) mass spectrometry, Ion Cyclotron Resonance (ICR) mass spectrometry, Fourier Transform mass spectrometry, or combinations thereof, where fully or partially LNA modified DNA probes are used in order to enhance stability and resolution. The invention in particular relates to a process for detecting a target nucleic acid sequence of a nucleic acid molecule or for detecting a mutation in a nucleic acid sequence of a nucleic acid molecule, wherein (a) the nucleic acid molecule or (b) a part of the nucleic acid molecule or (c) an oligonucleotide complementary to the sequence or at least a sub-sequence of the nucleic acid molecule is analysed by mass spectrometry in order to obtain direct or indirect information about the target nucleic acid sequence or mutation, and wherein the process involves the hybridisation of an LNA modified oligonucleotide to the nucleic acid molecule.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

1.6 ANSWER 6 OF 8 USPATFULL on STN AN 2000:21384 USPATFULL

```
Methods and compositions for enhancing sensitivity in the analysis of
TI
       biological-based assays
       Ness, Jeffrey Van, Seattle, WA, United States
ΙN
       Tabone, John C., Bothell, WA, United States
       Howbert, J. Jeffry, Bellevue, WA, United States
       Mulligan, John T., Seattle, WA, United States
       Rapigene, Inc., Bothell, WA, United States (U.S. corporation)
PA
       US 6027890
                               20000222
PΙ
       US 1997-898501
                               19970722 (8)
AΤ
       Continuation-in-part of Ser. No. US 1997-787521, filed on 22 Jan 1997,
RLI
       now abandoned
       US 1996-10436P
                           19960123 (60)
PRAI
       US 1996-15402P
                           19960321 (60)
       Utility
DΤ
FS
       Granted
       Primary Examiner: Houtteman, Scott W.
EXNAM
       Seed and Berry LLP
LREP
       Number of Claims: 72
CLMN
       Exemplary Claim: 1
ECL
       19 Drawing Figure(s); 19 Drawing Page(s)
DRWN
LN.CNT 6333
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Methods are provided for detecting the binding of a first member to a
       second member of a ligand pair, comprising the steps of (a) combining a
       set of first tagged members with a biological sample which may contain
       one or more second members, under conditions, and for a time sufficient
       to permit binding of a first member to a second member, wherein said tag
       is correlative with a particular first member and detectable by
       non-fluorescent spectrometry, or potentiometry, (b) separating bound
       first and second members from unbound members, (c) cleaving the tag from
       the tagged first member, and (d) detecting the tag by non-fluorescent
       spectrometry, or potentiometry, and therefrom detecting the binding of
       the first member to the second member.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 7 OF 8 USPATFULL on STN
L6
AN
       1999:40146 USPATFULL
ΤI
       Method for nucleic acid amplification and detection using adhered probes
       Sutton, Richard Calvin, Rochester, NY, United States
IN
       Ponticello, Ignazio Salvatore, Pittsford, NY, United States
       Cummins, Thomas Joseph, Rochester, NY, United States
       Zander, Dennis Roland, Penfield, NY, United States
       Donish, William Harold, Rochester, NY, United States
       Chen, Paul Hong-Dze, Oak Brook, IL, United States
       Findlay, John Bruce, Rochester, NY, United States
       Johnson & Johnson Clinical Diagnostics, Inc., Rochester, NY, United
PA
       States (U.S. corporation)
PΙ
       US 5888723
                               19990330
       US 1992-980512
AΤ
                               19921120 (7)
       Continuation-in-part of Ser. No. US 1992-837772, filed on 18 Feb 1992,
RLI
       now patented, Pat. No. US 5380489
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Myers, Carla J.
       Number of Claims: 24
CLMN
ECL
       Exemplary Claim: 1
DRWN
       1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 1641
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AΒ
       Nucleic acids can be amplified and detected using an element which has a
```

sealable support on which is disposed a nucleic acid reagent

composition. The composition is a mixture of a nucleic acid reagent composed of polymeric particles to which an oligonucleotide is covalently attached. The particles are prepared from a first polymer having a glass transition temperature of at least about 70° C. and have an average diameter of from about 0.1 to about 3 micrometers. The reagent is adhered to the support using a water insoluble adhesive comprising a second polymer which has a glass transition temperature which is at least about 30° C. less than the glass transition temperature of the first polymer. The adhesive is present in the composition at from about 1 to about 20 dry weight percent. The method provides high sensitivity and low background in the assay of nucleic acids, preferably using polymerase chain reaction.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
1.6
     ANSWER 8 OF 8 USPATFULL on STN
AN
       95:3610 USPATFULL
ΤI
       Element and method for nucleic acid amplification and detection using
       adhered probes
IN
       Sutton, Richard C., Rochester, NY, United States
       Ponticello, Ignazio S., Pittsford, NY, United States
       Cummins, Thomas J., Rochester, NY, United States
       Zander, Dennis R., Penfield, NY, United States
       Donish, William H., Rochester, NY, United States
PA
       Eastman Kodak Company, Rochester, NY, United States (U.S. corporation)
PΙ
       US 5380489
                               19950110
ΑI
       US 1992-837772
                               19920218 (7)
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Yarbrough, Amelia Burgess
       Tucker, James L.
LREP
       Number of Claims: 26
CLMN
ECL
       Exemplary Claim: 1
DRWN
       1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 1422
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       An element has been prepared which is useful for the detection of
```

An element has been prepared which is useful for the detection of nucleic acids in various formats. The element has a sealable support on which is disposed a nucleic acid reagent composition. The composition is a mixture of a nucleic acid reagent composed of polymeric particles to which an oligonucleotide is covalently attached. The particles are prepared from a first polymer having a glass transition temperature of at least about 70° C. and have an average diameter of from about 0.1 to about 3 micrometers. The reagent is adhered to the support using a water insoluble adhesive comprising a second polymer which has a glass transition temperature which is at least about 30° C. less than the glass transition temperature of the first polymer. The adhesive is present in the composition at from about 1 to about 20 weight percent. This element provides high sensitivity and low background in hybridization and other nucleic acid assays.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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(FILE 'HOME' ENTERED AT 08:54:34 ON 11 JAN 2005)
     FILE 'STNGUIDE' ENTERED AT 08:54:37 ON 11 JAN 2005
     FILE 'HOME' ENTERED AT 08:54:46 ON 11 JAN 2005
     FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 08:55:24 ON
     11 JAN 2005
           4506 S NUCLEIC ACID? (5A) IMMOBIL? (5A) (SUBSTRATE? OR SUPPORT?)
L1
L2
            146 S L1 AND UNSATUR?
             82 S L2 AND (THYMINE OR URACIL)
L3
             41 S L3 AND 3 (5A) 100
L4
              8 S L4 AND ELECTROMAGNET?
L5
              8 DUP REM L5 (0 DUPLICATES REMOVED)
L6
=> s l4 and irradia?
            24 L4 AND IRRADIA?
L7
=> s 17 not 16
            18 L7 NOT L6
^{18}
=> dup rem 18
PROCESSING COMPLETED FOR L8
             18 DUP REM L8 (0 DUPLICATES REMOVED)
=> d 19 bib abs 1-18
     ANSWER 1 OF 18 USPATFULL on STN
T.9
       2004:260559 USPATFULL
AN
ΤI
       Chemical amplification for the synthesis of patterned arrays
       Beecher, Jody E., Mountain View, CA, UNITED STATES
IN
       Goldberg, Martin J., San Jose, CA, UNITED STATES
       McGall, Glenn H., Mountain View, CA, UNITED STATES
       Affymetrix, Inc., Santa Clara, CA (U.S. corporation)
PA
ΡI
       US 2004203056
                          A1
                               20041014
       US 2004-840841
                          A1
                               20040507 (10)
ΑТ
RLI
       Continuation of Ser. No. US 2000-578282, filed on 25 May 2000, GRANTED,
       Pat. No. US 6770436 Continuation of Ser. No. US 1997-969227, filed on 13
       Nov 1997, GRANTED, Pat. No. US 6083697
PRAI
       US 1996-30826P
                           19961114 (60)
DT
       Utility
FS
       APPLICATION
       BANNER & WITCOFF LTD.,, ATTORNEYS FOR AFFYMETRIX, 1001 G STREET , N.W.,
LREP
       ELEVENTH FLOOR, WASHINGTON, DC, 20001-4597
CLMN
       Number of Claims: 24
ECL
       Exemplary Claim: CLM-01-16
DRWN
       7 Drawing Page(s)
LN.CNT 1246
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Radiation-activated catalysts (RACs), autocatalytic reactions, and
       protective groups are employed to achieve a. highly sensitive, high
       resolution, radiation directed combinatorial synthesis of pattern arrays
       of diverse polymers. When irradiated, RACs produce catalysts
       that can react with enhancers, such as those involved in autocatalytic
       reactions. The autocatalytic reactions produce at least one product that
       removes protecting groups from synthesis intermediates. This invention
       has a wide variety of applications and is particularly useful for the
       solid phase combinatorial synthesis of polymers.
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 2 OF 18 USPATFULL on STN

L9

```
2004:115913 USPATFULL
AN
ΤI
       Nucleic acids compositions conferring dwarfing phenotype
IN
       Oriedo, J. Vincent B., Midland, MI, UNITED STATES
       McCrery, David, Lake Jackson, TX, UNITED STATES
       Savickas, Philip, Franklin, MA, UNITED STATES
       Miller, Barbara A., Midland, MI, UNITED STATES
       Pell, Randy, Midland, MI, UNITED STATES
       Larrinua, Ignacio M., Indianapolis, IN, UNITED STATES
       Weglarz, Ted, Noblesville, IN, UNITED STATES
       Gachotte, Daniel, Indianapolis, IN, UNITED STATES
       Reddy, Avutu S., Carmel, IN, UNITED STATES
       Ruegger, Max, Indianapolis, IN, UNITED STATES
       Blakeslee, Beth, Fishers, IN, UNITED STATES
       Pogue, Gregory P., Vacaville, CA, UNITED STATES
       Crosley, Rodney, Indianapolis, IN, UNITED STATES
       Zheng, Wenjin, San Diego, CA, UNITED STATES
       Della-Cioppa, Guy R., Vacaville, CA, UNITED STATES
       Gershon, Wolfe D.W., Davis, CA, UNITED STATES
PΙ
       US 2004088762
                          A1
                               20040506
ΑI
       US 2003-333184
                          A1
                               20031010 (10)
       WO 2001-US23120
                               20010720
DT
       Utility
FS
       APPLICATION
LREP
       THE DOW CHEMICAL COMPANY, INTELLECTUAL PROPERTY SECTION, P. O. BOX 1967,
       MIDLAND, MI, 48641-1967
CLMN
       Number of Claims: 29
ECL
       Exemplary Claim: 1
DRWN
       255 Drawing Page(s)
LN.CNT 5684
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       This invention relates to putative known and unknown deoxyribonucleic
       acid (DNA) and amino acid sequences identified in one or more metabolic
       pathways that lead to dwarfism and stunting in plants and the use of
       these sequences in agriculture to create dwarf varieties of any plant
       species. This invention also relates to nucleic acids sequences and
       polypeptides that produce altered metabolism phenotypes in plants.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L9
     ANSWER 3 OF 18 USPATFULL on STN
AN
       2004:101228 USPATFULL
TI
       Whole cell engineering by mutagenizing a substantial portion of a
       starting genome, combining mutations, and optionally repeating
       Short, Jay M., Rancho Santa Fe, CA, UNITED STATES
IN
PI
       US 2004077090
                          Α1
                               20040422
ΑI
       US 2003-383798
                          Α1
                               20030306 (10)
       Continuation of Ser. No. US 2000-677584, filed on 30 Sep 2000, ABANDONED
RLI
       Continuation-in-part of Ser. No. US 2000-594459, filed on 14 Jun 2000,
       GRANTED, Pat. No. US 6605449 Continuation-in-part of Ser. No. US
       2000-522289, filed on 9 Mar 2000, GRANTED, Pat. No. US 6358709
       Continuation-in-part of Ser. No. US 2000-498557, filed on 4 Feb 2000,
       PENDING Continuation-in-part of Ser. No. US 2000-495052, filed on 31 Jan
       2000, GRANTED, Pat. No. US 6479258
PRAI
       US 1999-156815P
                           19990929 (60)
DT
       Utility
FS
       APPLICATION
       HALE AND DORR LLP, 300 PARK AVENUE, NEW YORK, NY, 10022
LREP
CLMN
       Number of Claims: 22
```

ECL Exemplary Claim: 1 DRWN 28 Drawing Page(s)

LN.CNT 37121

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

An invention comprising cellular transformation, directed evolution, and screening methods for creating novel transgenic organisms having desirable properties. Thus in one aspect, this invention relates to a method of generating a transgenic organism, such as a microbe or a plant, having a plurality of traits that are differentially activatable. Also, a method of retooling genes and gene pathways by the introduction of regulatory sequences, such as promoters, that are operable in an intended host, thus conferring operability to a novel gene pathway when it is introduced into an intended host. For example a novel man-made gene pathway, generated based on microbially-derived progenitor templates, that is operable in a plant cell. Furthermore, a method of generating novel host organisms having increased expression of desirable traits, recombinant genes, and gene products.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 4 OF 18 USPATFULL on STN

AN 2004:192594 USPATFULL

TI Chemical amplification for the synthesis of patterned arrays

IN Beecher, Jody E., Mountain View, CA, United States Goldberg, Martin J., San Jose, CA, United States McGall, Glenn H., Mountain View, CA, United States

PA Affymetrix, Inc., Santa Clara, CA, United States (U.S. corporation)

PI US 6770436 B1 20040803

AI US 2000-578282 20000525 (9)

RLI Continuation of Ser. No. US 1997-969227, filed on 13 Nov 1997, now patented, Pat. No. US 6083697

PRAI US 1996-30826P 19961114 (60)

DT Utility FS GRANTED

EXNAM Primary Examiner: Celsa, Bennett; Assistant Examiner: Epperson, Jon D.

LREP Banner & Witcoff, Ltd.
CLMN Number of Claims: 21
ECL Exemplary Claim: 1

DRWN 8 Drawing Figure(s); 7 Drawing Page(s)

LN.CNT 1301

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Radiation-activated catalysts (RACs), autocatalytic reactions, and protective groups are employed to achieve a highly sensitive, high resolution, radiation directed combinatorial synthesis of pattern arrays of diverse polymers. When irradiated, RACs produce catalysts that can react with enhancers, such as those involved in autocatalytic reactions. The autocatalytic reactions produce at least one product that removes protecting groups from synthesis intermediates. This invention has a wide variety of applications and is particularly useful for the solid phase combinatorial synthesis of polymers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 5 OF 18 USPATFULL on STN

AN 2003:294415 USPATFULL

TI Human enzyme molecules

IN Tang, Y. Tom, San Jose, CA, UNITED STATES
Lu, Dyung Aina M., San Jose, CA, UNITED STATES
Bandman, Olga, Mountain View, CA, UNITED STATES
Yue, Henry, Sunnyvale, CA, UNITED STATES
Azimzai, Yalda, Castro Valley, CA, UNITED STATES
Burford, Neil, Durham, CT, UNITED STATES

Lal, Preeti, Santa Clara, CA, UNITED STATES

Baughn, Mariah R., San Leandro, CA, UNITED STATES

20031106

PI US 2003207430 A1

AI US 2002-220381 A1 20020828 (10)

WO 2001-US6806 20010301

DT Utility

FS APPLICATION

LREP Incyte Genomics Inc, Legal Department, 3160 Porter Drive, Palo Alto, CA, 94304

CLMN Number of Claims: 131

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 8111

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention provides human enzyme molecules (HEM) and polynucleotides which identify and encode HEM. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating, or preventing disorders associated with aberrant expression of HEM.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 6 OF 18 USPATFULL on STN

AN 2003:219631 USPATFULL

TI Full-length human cDNAs encoding potentially secreted proteins

IN Dumas Milne Edwards, Jean-Baptiste, Paris, FRANCE

Bougueleret, Lydie, Petit Lancy, SWITZERLAND

Jobert, Severin, Paris, FRANCE

PI US 2003152921 A1 20030814

AI US 2001-876997 A1 20010608 (9)

RLI Continuation-in-part of Ser. No. US 2000-731872, filed on 7 Dec 2000,

PENDING

PRAI US 1999-169629P 19991208 (60)

. US 2000-187470P 20000306 (60)

DT Utility

FS APPLICATION

LREP Frank C. Eisenschenk, Ph.D., SALIWANCHIK, LLOYD & SALIWANCHIK, 2421 N.W.

41 STREET, SUITE A-1, GAINESVILLE, FL, 32606-6669

CLMN Number of Claims: 22

ECL Exemplary Claim: 1

DRWN 5 Drawing Page(s)

LN.CNT 27600

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention concerns GENSET polynucleotides and polypeptides. Such GENSET products may be used as reagents in forensic analyses, as chromosome markers, as tissue/cell/organelle-specific markers, in the production of expression vectors. In addition, they may be used in screening and diagnosis assays for abnormal GENSET expression and/or biological activity and for screening compounds that may be used in the treatment of GENSET-related disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 7 OF 18 USPATFULL on STN

AN 2003:213852 USPATFULL

TI Epoxide hydrolases, nucleic acids encoding them and methods for making and using them

IN Zhao, Lishan, Carlsbad, CA, UNITED STATES
Mathur, Eric J., Carlsbad, CA, UNITED STATES
Weiner, David, Del Mar, CA, UNITED STATES

Richardson, Toby, San Diego, CA, UNITED STATES

Milan, Aileen, San Diego, CA, UNITED STATES

Burk, Mark J., San Diego, CA, UNITED STATES

Han, Bin, San Diego, CA, UNITED STATES

Short, Jay M., Rancho Santa Fe, CA, UNITED STATES

PI US 2003148490 A1 20030807

AI US 2002-272490 A1 20021010 (10)

RLI Continuation-in-part of Ser. No. US 2002-214473, filed on 5 Aug 2002,

PENDING

PRAI US 2001-309478P 20010803 (60) US 2002-393978P 20020703 (60)

DT Utility

FS APPLICATION

LREP FISH & RICHARDSON, PC, 4350 LA JOLLA VILLAGE DRIVE, SUITE 500, SAN

DIEGO, CA, 92122

CLMN Number of Claims: 201

ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

LN.CNT 16377

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is directed to polypeptides having epoxide hydrolase activity, polynucleotides encoding the polypeptides, antibodies that bind to these polypeptides, and methods for making and using these polynucleotides and polypeptides. The epoxide hydrolases are used to catalyze the hydrolysis of epoxides and arene oxides to their corresponding diols.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 8 OF 18 USPATFULL on STN

AN 2003:213805 USPATFULL

TI Epoxide hydrolases, nucleic acids encoding them and methods of making and using them

IN Zhao, Lishan, Carlsbad, CA, UNITED STATES

Mathur, Eric J., Carlsbad, CA, UNITED STATES

Weiner, David, Del Mar, CA, UNITED STATES

Richardson, Toby, San Diego, CA, UNITED STATES

Milan, Aileen, San Diego, CA, UNITED STATES

Burk, Mark J., San Diego, CA, UNITED STATES

Han, Bin, San Diego, CA, UNITED STATES

Short, Jay M., Rancho Santa Fe, CA, UNITED STATES

PI US 2003148443 A1 20030807

AI US 2002-214473 A1 20020805 (10)

PRAI US 2001-309478P 20010803 (60)

US 2002-393378P 20020703 (60)

DT Utility

FS APPLICATION

LREP FISH & RICHARDSON, PC, 4350 LA JOLLA VILLAGE DRIVE, SUITE 500, SAN DIEGO, CA, 92122

CLMN Number of Claims: 197

ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

LN.CNT 15533

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is directed to polypeptides having epoxide hydrolase activity, polynucleotides encoding the polypeptides, antibodies that bind to these polypeptides, and methods for making and using these polynucleotides and polypeptides. The epoxide hydrolases are used to catalyze the hydrolysis of epoxides and arene oxides to their corresponding diols.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 9 OF 18 USPATFULL on STN

2003:165914 USPATFULL AN Aminooxy functionalized oligomers, oligomer arrays and methods of using TIManoharan, Muthiah, Carlsbad, CA, UNITED STATES IN Lonnberg, Harri, Turku, FINLAND Salo, Harri, Turku, FINLAND Virta, Pasi, Leito, FINLAND PΙ US 2003113769 A1 20030619 US 6825331 B2 20041130 20020903 (10) US 2002-234764 **A1** ΑI Division of Ser. No. US 1999-344260, filed on 25 Jun 1999, PENDING RLIContinuation-in-part of Ser. No. US 1998-16520, filed on 30 Jan 1998, GRANTED, Pat. No. US 6127533 US 1997-37143P 19970214 (60) PRAI DTUtility. APPLICATION FS WOODCOCK WASHBURN LLP, ONE LIBERTY PLACE, 46TH FLOOR, 1650 MARKET LREP STREET, PHILADELPHIA, PA, 19103 CLMN Number of Claims: 44 ECL Exemplary Claim: 1 DRWN 15 Drawing Page(s) LN.CNT 2017 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention provides oligomers which are specifically AR hybridizable with a selected sequence of RNA or DNA wherein at least one of the nucleoside moieties of the oligomer is modified to include an aminooxy linkage. These oligomers are useful for diagnostic, therapeutic and investigative purposes. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L9 ANSWER 10 OF 18 USPATFULL on STN 2003:37544 USPATFULL AN TISalicylamide-lanthanide complexes for use as luminescent markers Raymond, Kenneth N., Berkeley, CA, UNITED STATES TN Petoud, Stephane, Berkeley, CA, UNITED STATES Cohen, Seth, Boston, MA, UNITED STATES Xu, Jide, Berkeley, CA, UNITED STATES PA The Regents of the University of California, Oakland, CA, UNITED STATES (U.S. corporation) PΙ US 2003027189 A1 20030206 20020607 (10) ΑI US 2002-165818 A1 RLI Division of Ser. No. US 2000-507599, filed on 18 Feb 2000, GRANTED, Pat. No. US 6406297 PRAI WO 2000-US4284 20000218 US 1999-120600P 19990218 (60) DT Utility FS APPLICATION LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834 Number of Claims: 112 CLMN ECL Exemplary Claim: 1 DRWN 12 Drawing Page(s) LN.CNT 3616 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention provides luminescent lanthanide metal chelates AB comprising a metal ion of the lanthanide series and a complexing agent comprising at least one salicylamidyl moiety. Also provided are probes incorporating the salicylamidyl ligands of the invention and methods

utilizing the ligands of the invention and probes comprising the ligands

of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 11 OF 18 USPATFULL on STN L9 2003:155720 USPATFULL ANAminooxy functionalized oligomers ΤI Manoharan, Muthiah, Carlsbad, CA, United States IN Lonnberg, Harri, Turku, FINLAND Salo, Harri, Turku, FINLAND Virta, Pasi, Leito, FINLAND ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. PA corporation) US 6576752 В1 20030610 PΙ 19990625 (9) ΑI US 1999-344260 Continuation-in-part of Ser. No. US 1998-16520, filed on 30 Jan 1998, RLI now patented, Pat. No. US 6127533 19970214 (60) PRAI US 1997-37143P DTUtility FS GRANTED Primary Examiner: Richter, Johann; Assistant Examiner: Crane, L. E. **EXNAM** LREP Woodcock Washburn LLP Number of Claims: 18 CLMN ECL Exemplary Claim: 1 15 Drawing Figure(s); 15 Drawing Page(s) DRWN LN.CNT 2224 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention provides oligomers which are specifically AB hybridizable with a selected sequence of RNA or DNA wherein at least one of the nucleoside moieties of the oligomer is modified to include an aminooxy linkage. These oligomers are useful for diagnostic, therapeutic and investigative purposes. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 12 OF 18 USPATFULL on STN L9 2002:330424 USPATFULL ANPhthalamide lanthanide complexes for use as luminescent markers TI IN Raymond, Kenneth N., Berkeley, CA, UNITED STATES Petoud, Stephane, Berkeley, CA, UNITED STATES Cohen, Seth, Boston, MA, UNITED STATES Xu, Jide, Berkeley, CA, UNITED STATES 20021212 PΙ US 2002188111 A1 В2 20030204 US 6515113 20000218 (9) US 2000-507630 Α1 ΑI 19990218 (60) PRAI US 1999-120881P DTUtility APPLICATION FS Jeffry S Mann, Townsend And Townsend And Crew LLP, Two Embarcadero LREP Center 8th Floor, San Francisco, CA, 94111-3834 CLMN Number of Claims: 123 Exemplary Claim: 1 ECL 23 Drawing Page(s) DRWN LN.CNT 4409 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention provides luminescent lanthanide metal chelates comprising a metal ion of the lanthanide series and a complexing agent comprising at least one phthalamidyl moiety. Also provided are probes incorporating the phthalamidyl ligands of the invention and methods utilizing the ligands of the invention and probes comprising the ligands of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 13 OF 18 USPATFULL on STN
L9
        2002:236247 USPATFULL
AN
        Phthalamide-lanthanide complexes for use as luminescent markers
ΤI
        Raymond, Kenneth N., Berkeley, CA, UNITED STATES
 IN
        Petoud, Stephane, Berkeley, CA, UNITED STATES
        Cohen, Seth M., West Lake Village, CA, UNITED STATES
       Xu, Jide, Berkeley, CA, UNITED STATES
        Regents of UC Licensing Associate Office of Technology Licensing,
 PA
        Berkeley, CA, UNITED STATES, 94720-1620 (U.S. corporation)
 PΙ
        US 2002128451
                           A1
                                20020912
       US 2001-992156
                                20011114 (9)
                           A1
AΤ
       Division of Ser. No. US 2000-507630, filed on 18 Feb 2000, PENDING
RLI
       WO 2000-US4258
                            20000218
. PRAI
       US 1999-120881P
                            19990218 (60)
       US 1999-120600P
                            19990218 (60)
DT
       Utility
FS
       APPLICATION
       TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH
LREP
       FLOOR, SAN FRANCISCO, CA, 94111-3834
CLMN
       Number of Claims: 123
       Exemplary Claim: 1
ECL
DRWN
       23 Drawing Page(s)
LN.CNT 4403
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
        The present invention provides luminescent lanthanide metal chelates
AB
       comprising a metal ion of the lanthanide series and a complexing agent
       comprising at least one phthalamidyl moiety. Also provided are probes
       incorporating the phthalamidyl ligands of the invention and methods
       utilizing the ligands of the invention and probes comprising the ligands
       of the invention.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 14 OF 18 USPATFULL on STN
1.9
AN
       2002:191539 USPATFULL
тT
       Full-length human cDNAs encoding potentially secreted proteins
IN
       Milne Edwards, Jean-Baptiste Dumas, Paris, FRANCE
       Bouqueleret, Lydie, Petit Lancy, SWITZERLAND
       Jobert, Severin, Paris, FRANCE
PΙ
       US 2002102604
                                20020801
                           A1
                                20001207 (9)
       US 2000-731872
ΑI
                           A1
                            19991208 (60)
PRAI
       US 1999-169629P
       US 2000-187470P
                            20000306 (60)
DT
       Utility
FS
       APPLICATION
       John Lucas, Ph.D., J.D., Genset Corporation, 10665 Srrento Valley Road,
LREP
       San Diego, CA, 92121-1609
CLMN
       Number of Claims: 29
ECL
       Exemplary Claim: 1
DRWN
       5 Drawing Page(s)
LN.CNT 28061
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention concerns GENSET polynucleotides and polypeptides. Such
AB
       GENSET products may be used as reagents in forensic analyses, as
       chromosome markers, as tissue/cell/organelle-specific markers, in the
       production of expression vectors. In addition, they may be used in
       screening and diagnosis assays for abnormal GENSET expression and/or
       biological activity and for screening compounds that may be used in the
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

treatment of GENSET-related disorders.

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L9
     ANSWER 15 OF 18 USPATFULL on STN
       2002:143599 USPATFULL
AN
       Salicylamide-lanthanide complexes for use as luminescent markers
TI
       Raymond, Kenneth N., Berkeley, CA, United States
IN
       Petoud, Stephane, Berkeley, CA, United States
       Cohen, Seth, West Lake Village, CA, United States
       Xu, Jide, Berkeley, CA, United States
PΑ
       The Regents of the University of California, Oakland, CA, United States
       (U.S. corporation)
                               20020618
       US 6406297
PΙ
                               20000218 (9)
       US 2000-507599
AΙ
       US 1999-120600P
                           19990218 (60)
PRAI
DT
       Utility
       GRANTED
FS
EXNAM Primary Examiner: Riley, Jezia
       Townsend and Townsend and Crew LLP
LREP
CLMN
       Number of Claims: 5
       Exemplary Claim: 1
ECL
       12 Drawing Figure(s); 12 Drawing Page(s)
DRWN
LN.CNT 3141
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention provides luminescent lanthanide metal chelates
AB
       comprising a metal ion of the lanthanide series and a complexing agent
       comprising at least one salicylamidyl moiety. Also provided are probes
       incorporating the salicylamidyl ligands of the invention and methods
       utilizing the ligands of the invention and probes comprising the ligands
       of the invention.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 16 OF 18 USPATFULL on STN
L9
AN
       2000:84038 USPATFULL
       Chemical amplification for the synthesis of patterned arrays
TΙ
       Beecher, Jody E., Mountain View, CA, United States
IN
       Goldberg, Martin J., San Jose, CA, United States
       McGall, Glenn H., Mountain View, CA, United States
       Affymetrix, Inc., Santa Clara, CA, United States (U.S. corporation)
PA
PΙ
       US 6083697
                               20000704
ΑI
       US 1997-969227
                               19971113 (8)
       US 1996-30826P
                           19961114 (60)
PRAI
DT
       Utility
FS
       Granted
       Primary Examiner: Celsa, Bennett; Assistant Examiner: Ricigliano, Joseph
EXNAM
LREP
       Banner & Witcoff, Ltd.
CLMN
       Number of Claims: 18
       Exemplary Claim: 1
ECL
DRWN
       8 Drawing Figure(s); 7 Drawing Page(s)
LN.CNT 1295
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Radiation-activated catalysts (RACs), autocatalytic reactions, and
AB
       protective groups are employed to achieve a highly sensitive, high
       resolution, radiation directed combinatorial synthesis of pattern arrays
       of diverse polymers. When irradiated, RACs produce catalysts
       that can react with enhancers, such as those involved in autocatalytic
       reactions. The autocatalytic reactions produce at least one product that
       removes protecting groups from synthesis intermediates. This invention
```

has a wide variety of applications and is particularly useful for the

solid phase combinatorial synthesis of polymers.

ANSWER 17 OF 18 USPATFULL on STN L9 1999:132501 USPATFULL AN Hybridization carrier and a process for preparing the same ΤI Furuichi, Yasuhiro, Kamakura, Japan IN Hikata, Mikio, Yokohama, Japan Kuribayashi, Keiko, Yokohama, Japan JSR Corporation, Tokyo, Japan (non-U.S. corporation) PA US 5972611 19991026 PΙ US 1997-964448 19971104 (8) ΑI Continuation of Ser. No. US 1996-662830, filed on 12 Jun 1996, now RLI abandoned which is a continuation of Ser. No. US 1995-437910, filed on 10 May 1995, now abandoned which is a continuation of Ser. No. US 1993-3904, filed on 13 Jan 1993, now abandoned which is a continuation of Ser. No. US 1992-888409, filed on 21 May 1992, now abandoned which is a continuation of Ser. No. US 1991-674284, filed on 21 Mar 1991, now abandoned which is a continuation of Ser. No. US 1988-288601, filed on 22 Dec 1988, now abandoned JP 1987-329402 19871225 PRAI Utility DTFS Granted Primary Examiner: Zitomer, Stephanie EXNAM Oblon, Spivak, McClelland, Maier & Neustadt, P.C. LREP Number of Claims: 21 CLMN Exemplary Claim: 1 ECL 2 Drawing Figure(s); 1 Drawing Page(s) DRWN LN.CNT 861

5'-(dN).sub.n (dT).sub.m -3',

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

having the formula:

AB

wherein N represents admine, guanine or cytosin; T represents thymine; n is an integer of 2 or larger; and m is an integer of 5 or larger;

A hybridization carrier, containing a single-stranded polynucleotide

the polynucleotide being immobilized by an amide bond on a surface of an organic polymers particle having a diameter of from about 0.05 μm to about 5 μm ;

the polynucleotide being immobilized at the site of a nucleotide sequence consisting of 2 or more polynucleotide which contain a primary amino residue in the polynucleotide; and

the amide bond having been formed between the primary amino residue and a carboxyl residue on the surface of the organic polymer particle.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 18 OF 18 USPATFULL on STN L9 AN94:82150 USPATFULL Assay for nucleic acid sequences in an unpurified sample TΙ Dattagupta, Nanibhushan, West Haven, CT, United States IN Rae, Peter M. M., Hamden, CT, United States Rabin, Daniel U., Branford, CT, United States Huguenel, Edward D., Guilford, CT, United States PA Miles Inc., Elkhart, IN, United States (U.S. corporation) PΙ US 5348855 19940920 US 1991-772625 19911004 (7) AΤ Continuation of Ser. No. US 1987-24643, filed on 19 Mar 1987, now RLI abandoned which is a continuation-in-part of Ser. No. US 1986-943006, filed on 19 Dec 1986, now abandoned which is a continuation-in-part of Ser. No. US 1986-836378, filed on 5 Mar 1986, now abandoned

DT Utility FS Granted

EXNAM Primary Examiner: Parr, Margaret; Assistant Examiner: Horlick, Kenneth

R.

LREP Sprung Horn Kramer & Woods

CLMN Number of Claims: 11 ECL Exemplary Claim: 1

DRWN 2 Drawing Figure(s); 2 Drawing Page(s)

LN.CNT 1444

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

- AB A method for detecting (i) one or more microorganisms or (ii) nucleic acid sequences from a prokaryotic source or an eukaroytic source in an unpurified nucleic acid-containing test sample comprising
 - (a) labeling the nucleic acids in the test sample,
 - (b) contacting, under hybridization conditions, the labeled hybridizable nucleic acid and one or more immobilized hybridizable nucleic acid probes comprising (i) one or more known microorganisms or (ii) sequences from eukaroytic or prokaryotic sources, to form hybridized labeled nucleic acids, and
 - (d) assaying for the hybridized nucleic acids by detecting the label. The method can be used to detect genetic disorders, e.g., sickle-cell anemia.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

(FILE 'HOME' ENTERED AT 14:25:34 ON 11 JAN 2005) FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 14:25:52 ON 11 JAN 2005 132 S UV (10A) NUCLEIC ACID? (15A) IMMOBILI? L1L2 30 S L1 AND POLYSTYRENE L3 2 S L2 AND TAIL? (4A) OLIGONUCLEOTIDE? => s 12 not 13 28 L2 NOT L3 . L4 => dup rem 14 PROCESSING COMPLETED FOR L4 25 DUP REM L4 (3 DUPLICATES REMOVED) => d 15 bib abs 1-25 L5 ANSWER 1 OF 25 USPATFULL on STN 2004:320925 USPATFULL AN ΤI Dynamic action reference tools Roberts, Radclyffe L., Seattle, WA, UNITED STATES IN De Figuereido, Paul, Kenmore, WA, UNITED STATES PΙ US 2004253578 A1 20041216 US 2004-474298 20040720 (10) ΑI A1 WO 2002-US10566 20020402 PRAI US 2001-281133P 20010402 (60) US 2001-281342P 20010403 (60) DTUtility APPLICATION FS JONES DAY, 222 EAST 41ST ST, NEW YORK, NY, 10017 LREP Number of Claims: 41 CLMN ECL Exemplary Claim: 1 DRWN 6 Drawing Page(s) LN.CNT 7518 CAS INDEXING IS AVAILABLE FOR THIS PATENT. AΒ The present invention provides Dynamic Action Reference Tools, or DARTs, and methods of making and using DARTS. DARTs can be used, for example, for the isolation and analysis of nucleic acids, polypeptides, and the like, for regulating biological activities and investigating inter-molecular interactions, and the like. A DART is a molecule that includes a Molecular Shaft covalently linked to a Linkage Polypeptide that is covalently linked to a Molecular Point. DARTs, and DART libraries, can be formed and manipulated in vivo or in vitro. DARTs can be purified, and portions of DARTs can be exchanged with portions of other DARTs. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L5ANSWER 2 OF 25 USPATFULL on STN AN 2004:280286 USPATFULL Unit for biochemical analysis TΙ IN Kuruma, Koji, Minami-ashigara-shi, JAPAN Inomata, Hiroko, Asaka-shi, JAPAN PA FUJI PHOTO FILM CO., LTD. (non-U.S. corporation) PΙ US 2004219586 A120041104

FS APPLICATION
LREP SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W., SUITE 800,

20040325 (10)

A1

20030328

US 2004-808451

JP 2003-90369

Utility

ΑI

DT

PRAI

Exemplary Claim: 1 ECL DRWN No Drawings LN.CNT 1762 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention provides a unit for biochemical analysis wherein the unit comprises a substrate formed of a material having properties of attenuating radiation and/or light and formed with a plurality of holes, and adsorptive areas are respectively formed inside the plurality of holes, thereby forming a plurality of adsorptive areas, and wherein covalently binding functional groups are introduced onto the adsorptive areas. The present invention enables to provide a unit for biochemical analysis which is capable of carrying out strong and efficient immobilization of specific binding substances and can obtain specific and high signals by controlling the direction of the immobilized specific binding substances. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 3 OF 25 USPATFULL on STN L52004:280223 USPATFULL AN ΤI Nucleic acid sensor molecules and methods of using same Stanton, Martin, Stow, MA, UNITED STATES IN Epstein, David, Belmont, MA, UNITED STATES Hamaguchi, Nobuko, Framingham, MA, UNITED STATES Kurz, Markus, Newton, MA, UNITED STATES Keefe, Tony, Cambridge, MA, UNITED STATES Wilson, Charles, Concord, MA, UNITED STATES Grate, Dilara, Waltham, MA, UNITED STATES Marshall, Kristin A., Arlington, MA, UNITED STATES McCauley, Thomas G., Somerville, MA, UNITED STATES Kurz, Jeffrey C., Somerville, MA, UNITED STATES PΙ US 2004219523 A120041104 20020809 (10) ΑI US 2002-215982 Α1 Continuation-in-part of Ser. No. US 2001-952680, filed on 13 Sep 2001, RLI ABANDONED 20010809 (60) PRAI US 2001-311378P US 2001-313932P 20010821 (60) US 2001-338186P 20011113 (60) US 2002-349959P 20020118 (60) US 2002-364486P 20020313 (60) US 2002-367991P 20020325 (60) US 2002-369887P 20020404 (60) US 2002-376744P 20020501 (60) US 2002-385097P 20020531 (60) US 2000-232454P 20000913 (60) Utility DT FS APPLICATION Ivor R. Elrifi, Mintz, Levin, Cohn, Ferris,, Glovsky and Popeo, P.C., LREP One Financial Center, Boston, MA, 02111 CLMN Number of Claims: 99 ECL Exemplary Claim: 1 DRWN 90 Drawing Page(s) LN.CNT 12038 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Methods for engineering a nucleic acid sensor molecule are provided. AB Biosensors comprise a plurality of nucleic acid sensor molecules labeled with a first signaling moiety and a second signaling moiety. The nucleic acid sensor molecules recognizes target molecules which do not naturally

bind to DNA. Binding of a target molecule to the sensor molecules

triggers a change in the proximity of the signaling moieties which leads

WASHINGTON, DC, 20037 Number of Claims: 17

CLMN

to a change in the optical properties of the nucleic acid sensor molecules on the biosensor. Reagents and systems for performing the method are also provided. The method is useful in diagnostic applications and drug optimization.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 4 OF 25 USPATFULL on STN L52004:267764 USPATFULL ANΤI Epoxide polymer surfaces Swan, Dale G., St. Louis Park, MN, UNITED STATES TN Swanson, Melvin J., Carver, MN, UNITED STATES SurModics, Inc., Eden Prairie, MN (U.S. corporation) PA PΙ US 2004209305 A1 20041021 US 2004-844667 20040512 (10) ΑI A1 Continuation of Ser. No. US 2000-521545, filed on 9 Mar 2000, GRANTED, RLI Pat. No. US 6762019 Continuation-in-part of Ser. No. US 1999-227913, filed on 8 Jan 1999, GRANTED, Pat. No. US 6465178 Continuation-in-part of Ser. No. US 1997-940213, filed on 30 Sep 1997, GRANTED, Pat. No. US 5858653 DT Utility FS APPLICATION Attention of Mark T. Skoog, MERCHANT & GOULD P.C., P.O. Box 2903, LREP Minneapolis, MN, 55402-0903 Number of Claims: 28 CLMN Exemplary Claim: 1 ECL DRWN No Drawings LN.CNT 1093 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Method and reagent composition for covalent attachment of target AB

molecules, such as nucleic acids, onto the surface of a substrate. The reagent composition includes epoxide groups capable of covalently binding to the target molecule. Optionally, the composition can contain photoreactive groups for use in attaching the reagent composition to the surface. The reagent composition can be used to provide activated slides for use in preparing microarrays of nucleic acids.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 5 OF 25 USPATFULL on STN
T.5
AN
       2004:31088 USPATFULL
TI
       Method for immobilizing nucleic acids
IN
       Ozkan, Derva, Berlin, GERMANY, FEDERAL REPUBLIC OF
PΙ
       US 2004023226
                          Α1
                                20040205
ΑI
       US 2003-220331
                          Α1
                                20030305 (10)
       WO 2001-DE812
                                20010227
       DE 2000-10010376
                           20000228
PRAI
       DE 2000-10053393
                           20001020
DT
       Utility
       APPLICATION
FS
LREP
       MCGLEW & TUTTLE, PC, SCARBOROUGH STATION, SCARBOROUGH, NY, 10510
CLMN
       Number of Claims: 13
       Exemplary Claim: 1
ECL
       No Drawings
DRWN
LN.CNT 607
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

The invention relates to a method for immobilizing nucleic acids on one AB of the surfaces of a non-porous organic polymeric material which does not carry any primary and/or secondary amine groups. The inventive method comprises the following steps: (a) an aqueous solution containing a nucleic acid as well as a dissolved salt is prepared, whereby the cation of the salt is selected from the group comprised of sodium,

magnesium and of mixtures of these cations; (b) the solution mentioned in step (a) is brought into contact with the surface of the polymeric material, and; (c) the surface of the polymeric material, which is in contact with the solution, is irradiated with UV light after step (b) or simultaneously thereto.

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CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L5
     ANSWER 6 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
AN
     2003:610753 CAPLUS
DN
     139:146216
     Method for immobilizing biomolecule to carrier by UV irradiation
ΤI
     Oda, Ryuichi; Kimura, Naoki
IN
     Nisshinbo Industries, Inc., Japan
PA
     PCT Int. Appl., 37 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     Japanese
FAN.CNT 1
     PATENT NO.
                        KIND
                                DATE
                                           APPLICATION NO.
     ______
                        ____
                               _____
                                           _______
                                         WO 2003-JP1006
     WO 2003065040
                         A1
                               20030807
                                                                  20030131
PΙ
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
             PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
            UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                         JP 2002-242456
     JP 2003294751
                         A2
                               20031015
                                                                  20020822
                                          EP 2003-703128
                               20041027
     EP 1471355
                         A1
                                                                  20030131
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
PRAI JP 2002-25622
                         Α
                               20020201
     JP 2002-242456
                         Α
                                20020822
     WO 2003-JP1006
                         W
                               20030131
AΒ
    A method is provided for immobilizing a biomol. (e.g., nucleic acid,
    protein, carbohydrate, antigen, antibody, peptide, enzyme) to a carrier
     (e.g., synthetic resin, natural resin). The method comprises spotting a
     solution of a nucleic acid on a carrier consisting of a synthetic resin
     (e.g., polycarbonate, polymethylmethacrylate, acrylonitrile-butadiene-
     styrene copolymer, polyethylene, polyethylene terephthalate, polyphenol,
    polystyrene, polyacrylonitrile, polyvinyl chloride, aramid),
     drying the solution, and irradiating the carrier with UV light containing a
     component of the wavelength of 280nm, preferably in a dose of 100mJ/cm2 or
    more.
```

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 7 OF 25 USPATFULL on STN
L5
       2003:165936 USPATFULL
AN
ΤI
       Epoxide polymer surfaces
IN
       Swan, Dale G., St. Louis Park, MN, UNITED STATES
       Swanson, Melvin J., Carver, MN, UNITED STATES
PΙ
                          A1
                               20030619
       US 2003113792
                               20040713
       US 6762019
                          B2
                               20000309 (9)
ΑI
       US 2000-521545
                         A1
       Continuation-in-part of Ser. No. US 1999-227913, filed on 8 Jan 1999,
RLI
       GRANTED, Pat. No. US 6465178 Continuation-in-part of Ser. No. US
```

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1997-940213, filed on 30 Sep 1997, GRANTED, Pat. No. US 5858653
DT
       Utility
       APPLICATION
FS
       MERCHANT & GOULD PC, P.O. BOX 2903, MINNEAPOLIS, MN, 55402-0903
LREP
       Number of Claims: 28
CLMN
       Exemplary Claim: 1
ECL
       No Drawings
DRWN
LN.CNT 1094
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Method and reagent composition for covalent attachment of target
       molecules, such as nucleic acids, onto the surface of a substrate. The
       reagent composition includes epoxide groups capable of covalently
       binding to the target molecule. Optionally, the composition can contain
       photoreactive groups for use in attaching the reagent composition to the
       surface. The reagent composition can be used to provide activated slides
       for use in preparing microarrays of nucleic acids.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
T.5
     ANSWER 8 OF 25 USPATFULL on STN
       2003:140432 USPATFULL
AN
       Methods for immobilizing molecules to a solid phase and uses thereof
TΙ
       Gagna, Claude, Old Westbury, NY, UNITED STATES
IN
                                20030522
PΙ
       US 2003096273
                          A1
       US 2002-209849
                           A1
                                20020731 (10)
ΑI
       US 2001-308936P
                           20010731 (60)
PRAI
DT
       Utility
       APPLICATION
FS
LREP
       FULBRIGHT & JAWORSKI, LLP, 666 FIFTH AVE, NEW YORK, NY, 10103-3198
CLMN
       Number of Claims: 45
ECL
       Exemplary Claim: 1
       No Drawings
DRWN
LN.CNT 1842
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Various methodologies for the immobilization of molecules such, as
       multistranded nucleic acid molecules, are described. The methodologies
       include activation of solid supports, as well as treatment of, e.g.
       termini of nucleic acid molecules to render them more receptive to
       immobilization on surfaces.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 9 OF 25 USPATFULL on STN
L5
       2003:112863 USPATFULL
AN
       Methods and compositions for enhancing sensitivity in the analysis of
TI '
       biological-based assays
       Van Ness, Jeffrey, Seattle, WA, UNITED STATES
IN
       Tabone, John C., Bothell, CA, UNITED STATES
       Howbert, J. Jeffry, Bellevue, WA, UNITED STATES
       Mulligan, John T., Seattle, WA, UNITED STATES
       QIAGEN Genomics, Inc., Bothell, WA (U.S. corporation)
PA
       US 2003077595
PI
                           A1
                                20030424
       US 6815212
                           B2
                                20041109
      US 2001-467
ΑI
                           A1
                                20011024 (10)
       Continuation of Ser. No. US 1999-457048, filed on 7 Dec 1999, ABANDONED Continuation of Ser. No. US 1997-898501, filed on 22 Jul 1997, GRANTED,
       Pat. No. US 6027890 Continuation-in-part of Ser. No. US 1997-787521,
       filed on 22 Jan 1997, ABANDONED
PRAI
       US 1996-10436P
                            19960123 (60)
       US 1996-15402P
                            19960321 (60)
```

Utility

APPLICATION

DT FS LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092

CLMN Number of Claims: 61 ECL Exemplary Claim: 1 DRWN 36 Drawing Page(s)

LN.CNT 5954

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods are provided for detecting the binding of a first member to a second member of a ligand pair, comprising the steps of (a) combining a set of first tagged members with a biological sample which may contain one or more second members, under conditions, and for a time sufficient to permit binding of a first member to a second member, wherein said tag is correlative with a particular first member and detectable by non-fluorescent spectrometry, or potentiometry, (b) separating bound first and second members from unbound members, (c) cleaving the tag from the tagged first member, and (d) detecting the tag by non-fluorescent spectrometry, or potentiometry, and therefrom detecting the binding of the first member to the second member.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 10 OF 25 USPATFULL on STN

AN 2003:93794 USPATFULL

TI Nucleic acid sensor molecules

IN Usman, Nassim, Lafayette, CO, UNITED STATES
McSwiggen, James A., Boulder, CO, UNITED STATES
Zinnen, Shawn, Denver, CO, UNITED STATES
Seiwert, Scott, Lyons, CO, UNITED STATES
Haeberli, Peter, Berthoud, CO, UNITED STATES
Chowrira, Bharat, Broomfield, CO, UNITED STATES
Blatt, Lawrence, Boulder, CO, UNITED STATES
Vaish, Narendra K., Boulder, CO, UNITED STATES

PI US 2003065155 A1 20030403

AI US 2002-56761 A1 20020123 (10)

RLI Continuation-in-part of Ser. No. US 2001-992160, filed on 5 Nov 2001, PENDING Continuation-in-part of Ser. No. US 2001-877526, filed on 8 Jun 2001, PENDING Continuation-in-part of Ser. No. US 2001-800594, filed on 6 Mar 2001, PENDING

PRAI WO 2001-US7163 20010306 US 2000-187128P 20000306 (60)

DT Utility

FS APPLICATION

LREP MCDONNELL BOEHNEN HULBERT & BERGHOFF, 300 SOUTH WACKER DRIVE, SUITE 3200, CHICAGO, IL, 60606

CLMN Number of Claims: 11

ECL Exemplary Claim: 1

DRWN 55 Drawing Page(s)

LN.CNT 5302

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Nucleic acid sensor molecules and methods are provided for the detection and amplification of signaling agents using enzymatic nucleic acid constructs, including hammerhead enzymatic nucleic acid molecules, inozymes, G-cleaver enzymatic nucleic acid molecules, zinzymes, amberzymes and DNAzymes. Also provided are kits for detection and amplification. The nucleic acid sensor molecules, methods and kits provided herein can be used in diagnostics, nucleic acid circuits, nucleic acid computers, therapeutics, target validation, target discovery, drug optimization, single nucleotide polymorphism (SNP) detection, single nucleotide polymorphism (SNP) scoring, and proteome scoring as well as other uses described herein.

```
ANSWER 11 OF 25 USPATFULL on STN
L5
       2003:93034 USPATFULL
AN
       Integrated systems and methods for diversity generation and screening
ΤI
       Bass, Steven H., Hillsborough, CA, UNITED STATES
IN
       Davis, S. Christopher, San Francisco, CA, UNITED STATES
       Patten, Phillip A., Menlo Park, CA, UNITED STATES
       Tobin, Matthew, San Jose, CA, UNITED STATES
       Minshull, Jeremy, Menlo Park, CA, UNITED STATES
       Welch, Mark, Fremont, CA, UNITED STATES
       Gustafsson, Claes, Belmont, CA, UNITED STATES
       Carr, Brian, Fremont, CA, UNITED STATES
       Jenne, Stephane, Burlingame, CA, UNITED STATES
       Raillard, Sun Ai, Mountain View, CA, UNITED STATES
       Crameri, Andreas, Reinach, SWITZERLAND
       Stemmer, Willem P.C., Los Gatos, CA, UNITED STATES
       Emig, Robin, Redwood City, CA, UNITED STATES
       Longchamp, Pascal, East Palo Alto, CA, UNITED STATES
       Goldman, Stanley, Walnut Creek, CA, UNITED STATES
       Giver, Lorraine J., Santa Clara, CA, UNITED STATES
       Affholter, Joseph A., Lake Village Zephyr Cove, NV, UNITED STATES
       Maxygen, Inc. (U.S. corporation)
PA
PΙ
       US 2003064393
                          A1
                               20030403
ΑI
       US 2002-155739
                          A1
                               20020523 (10)
RLI
       Continuation of Ser. No. US 2001-760010, filed on 10 Jan 2001, PENDING
                           20000111 (60)
PRAI
       US 2000-175551P
       US 2000-213947P
                           20000623 (60)
DΤ
       Utility
FS
       APPLICATION
LREP
       QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA,
CLMN
       Number of Claims: 299
       Exemplary Claim: 1
ECL
       40 Drawing Page(s)
DRWN
LN.CNT 8296
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Integrated systems and methods for diversity generation and screening
       are provided. The systems use common fluid and array handling components
       to provide nucleic acid diversification, transcription, translation,
       product screening and subsequent diversification reactions.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 12 OF 25 USPATFULL on STN
L5
AN
       2003:78464 USPATFULL
TI
       Integrated systems and methods for diversity generation and screening
       Bass, Steven H., Hillsborough, CA, UNITED STATES
IN
       Davis, S. Christopher, San Francisco, CA, UNITED STATES
       Patten, Phillip A., Menlo Park, CA, UNITED STATES
       Tobin, Matthew, San Jose, CA, UNITED STATES
      Minshull, Jeremy, Menlo Park, CA, UNITED STATES
       Welch, Mark, Fremont, CA, UNITED STATES
       Gustafsson, Claus, Belmont, CA, UNITED STATES
       Carr, Brian, Fremont, CA, UNITED STATES
       Jenne, Stephane, Burlingame, CA, UNITED STATES
       Raillard, Sun Ai, Mountain View, CA, UNITED STATES
       Crameri, Andreas, Reinach, SWITZERLAND
       Stemmer, Willem P.C., Los Gatos, CA, UNITED STATES
       Emig, Robin, Redwood City, CA, UNITED STATES
       Longschamp, Pascal, East Palo Alto, CA, UNITED STATES
       Goldman, Stanley, Walnut Creek, CA, UNITED STATES
```

Giver, Lorraine J., Santa Clara, CA, UNITED STATES

```
Affholter, Joseph A., Lake Village Zephyr Cove, NV, UNITED STATES
       Maxygen, Inc. (U.S. corporation)
PA
                               20030320
PΙ
       US 2003054384
                          A1
ΑI
       US 2002-154939
                          A1
                               20020523 (10)
       Continuation of Ser. No. US 2001-760010, filed on 10 Jan 2001, PENDING
RLI
                           20000111 (60)
PRAI
       US 2000-175551P
       US 2000-213947P
                           20000623 (60)
       Utility
DT
       APPLICATION
FS
       QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA,
LREP
       Number of Claims: 299
CLMN
ECL
       Exemplary Claim: 1
       40 Drawing Page(s)
DRWN
LN.CNT 8296
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Integrated systems and methods for diversity generation and screening
AB
       are provided. The systems use common fluid and array handling components
       to provide nucleic acid diversification, transcription, translation,
       product screening and subsequent diversification reactions.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 13 OF 25 USPATFULL on STN
L5
       2003:78463 USPATFULL
ΑN
       Integrated systems and methods for diversity generation and screening
ΤI
IN
       Bass, Steven H., Hillsborough, CA, UNITED STATES
       Davis, S. Christopher, San Francisco, CA, UNITED STATES
       Patten, Phillip A., Menlo Park, CA, UNITED STATES
       Tobin, Matthew, San Jose, CA, UNITED STATES
       Minshull, Jeremy, Menlo Park, CA, UNITED STATES
       Welch, Mark, Fremont, CA, UNITED STATES
       Gustafsson, Claes, Belmont, CA, UNITED STATES
       Carr, Brian, Fremont, CA, UNITED STATES
       Jenne, Stephane, Burlingame, CA, UNITED STATES
       Raillard, Sun Ai, Mountain View, CA, UNITED STATES
       Crameri, Andreas, Reinach, SWITZERLAND
       Stemmer, Willem P.C., Los Gatos, CA, UNITED STATES
       Emig, Robin, Redwood City, CA, UNITED STATES
       Longschamp, Pascal, East Palo Alto, CA, UNITED STATES
       Goldman, Stanley, Walnut Creek, CA, UNITED STATES
       Giver, Lorraine J., Santa Clara, CA, UNITED STATES
       Affholter, Joseph A., Lake Village Zephyr Cove, NV, UNITED STATES
       Maxygen, Inc. (U.S. corporation)
PA
       US 2003054383
PΙ
                          A1
                               20030320
AΙ
       US 2002-154936
                          A1
                               20020523 (10)
       Continuation of Ser. No. US 2001-760010, filed on 10 Jan 2001, PENDING
RLI
PRAI
       US 2000-175551P
                           20000111 (60)
       US 2000-213947P
                           20000623 (60)
DT
       Utility
FS
       APPLICATION
LREP
       QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA,
       94501
CLMN
       Number of Claims: 299
ECL
       Exemplary Claim: 1
       40 Drawing Page(s)
DRWN
LN.CNT 8302
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       Integrated systems and methods for diversity generation and screening
       are provided. The systems use common fluid and array handling components
       to provide nucleic acid diversification, transcription, translation,
       product screening and subsequent diversification reactions.
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

FS

LREP

CLMN

APPLICATION

3200, CHICAGO, IL, 60606 Number of Claims: 54

```
ANSWER 14 OF 25 USPATFULL on STN
L5
       2003:10600 USPATFULL
AN
ΤI
       Nucleic acid sensor molecules
       Usman, Nassim, Lafayette, CO, UNITED STATES
IN
       McSwiggen, James A., Boulder, CO, UNITED STATES
       Zinnen, Shawn, Denver, CO, UNITED STATES
       Seiwert, Scott, Lyons, CO, UNITED STATES
       Haeberli, Peter, Berthoud, CO, UNITED STATES
       Chowrira, Bharat, Broomfield, CO, UNITED STATES
       Blatt, Lawrence, Boulder, CO, UNITED STATES
       Vaish, Narendra, Boulder, CO, UNITED STATES
       US 2003008295
                          A1
                               20030109
PΙ
                               20011105 (9)
       US 2001-992160
                          A1
AΙ
       Continuation-in-part of Ser. No. US 2001-877526, filed on 8 Jun 2001,
RLI
       PENDING Continuation-in-part of Ser. No. US 2001-800594, filed on 6 Mar
       2001, PENDING
PRAI
       WO 2001-US7163
                           20010306
       US 2000-187128P
                           20000306 (60)
       Utility
DT
       APPLICATION
FS
       MCDONNELL BOEHNEN HULBERT & BERGHOFF, 300 SOUTH WACKER DRIVE, SUITE
LREP
       3200, CHICAGO, IL, 60606
       Number of Claims: 11
CLMN
ECL
       Exemplary Claim: 1
DRWN
       42 Drawing Page(s)
LN.CNT 4858
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Nucleic acid sensor molecules and methods are disclosed for the
       detection and amplification of signaling agents using enzymatic nucleic
       acid constructs, including hammerhead enzymatic nucleic acid molecules,
       inozymes, G-cleaver enzymatic nucleic acid molecules, zinzymes,
       amberzymes and DNAzymes; kits for detection and amplification; use in
       diagnostics, nucleic acid circuits, nucleic acid computers,
       therapeutics, target validation, target discovery, drug optimization,
       SNP detection, SNP scoring, proteome scoring and other uses are
       disclosed.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 15 OF 25 USPATFULL on STN
L5
AN
       2002:191503 USPATFULL
ΤI
       Nucleic acid sensor molecules
       Usman, Nassim, Lafayette, CO, UNITED STATES
IN
       McSwiggen, James A., Boulder, CO, UNITED STATES
       Zinnen, Shawn, Denver, CO, UNITED STATES
       Seiwert, Scott, Lyons, CO, UNITED STATES
       Haeberli, Peter, Berthoud, CO, UNITED STATES
       Chowrira, Bharat, Broomfield, CO, UNITED STATES
       Blatt, Lawrence, Boulder, CO, UNITED STATES
       Vaish, Narendra K., Boulder, CO, UNITED STATES
       US 2002102568
                          Α1
                               20020801
ΡI
       US 2001-877526
                               20010608 (9)
ΆI
                          Α1
                           20010306
PRAI
       WO 2001-US7163
       US 2000-187128P
                           20000306 (60)
       Utility
DT
```

MCDONNELL BOEHNEN HULBERT & BERGHOFF, 300 SOUTH WACKER DRIVE, SUITE

ECL Exemplary Claim: 1 DRWN 40 Drawing Page(s)

LN.CNT 4865

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Nucleic acid sensor molecules and methods are disclosed for the detection and amplification of signaling agents using enzymatic nucleic acid constructs, including hammerhead enzymatic nucleic acid molecules, inozymes, G-cleaver enzymatic nucleic acid molecules, zinzymes, amberzymes and DNAzymes; kits for detection and amplification; use in diagnostics, nucleic acid circuits, nucleic acid computers, therapeutics, target validation, target discovery, drug optimization, SNP detection, SNP scoring, proteome scoring and other uses are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 16 OF 25 USPATFULL on STN

AN 2002:63679 USPATFULL

TI Compositions and methods for enhancing hybridization and priming specificity

IN Van Ness, Jeffrey, Seattle, WA, United States Tabone, John C., Bothell, WA, United States Garrison, Lori K., Seattle, WA, United States

PA QIAGEN Genomics, Inc., Bothell, WA, United States (U.S. corporation)

PI US 6361940 B1 20020326

AI US 1998-53831 19980401 (9)

RLI Continuation-in-part of Ser. No. US 1997-2051, filed on 31 Dec 1997, now abandoned Continuation-in-part of Ser. No. US 1997-933924, filed on 23 Sep 1997, now abandoned

PRAI US 1996-26621P 19960924 (60)

DT Utility FS GRANTED

EXNAM Primary Examiner: Riley, Jezia

LREP Seed Intellectual Property Law Group PLLC

CLMN Number of Claims: 97 ECL Exemplary Claim: 1

DRWN 33 Drawing Figure(s); 30 Drawing Page(s)

LN.CNT 6301

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods are provided for increasing the specificity of a probe nucleic acid for a target nucleic acid in a hybridization solution. An abasic residue, deoxyNebularine residue, or a hybotrope is used to increase specificity. A method is provided for identifying useful hybotropes, including salts, water miscible organic solvents, aprotic solvents and organic solvents, on the basis of enthalpy considerations. Hybotropic hybridization and modified oligonucleotides may be used in amplification reactions, such as PCR, sequence analysis methods, and genomic screening methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 17 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1

AN 2001:636254 CAPLUS

DN 135:207885

TI Method for immobilizing nucleic acids onto polymers using UV light

IN Oezkan, Derya

PA Origen Biotechnology A.-G., Germany

SO PCT Int. Appl., 28 pp. CODEN: PIXXD2

DT Patent

LA German

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FAN.CNT 3
                                             APPLICATION NO.
                                 DATE
                                                                     DATE
     PATENT NO.
                         KIND
                         ____
                                 -----
                                             WO 2001-DE812
                                                                     20010227
     WO 2001062963
                          A2
                                 20010830
PΙ
         W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
             CZ, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
             MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
             TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
             RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     DE 10053393
                                 20011220
                                            DE 2000-10053393
                                                                     20001020
                          Α1
                                 20030502
                                             EP 2001-929225
     EP 1305444
                          A2
                                                                     20010227
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                             US 2003-220331
     US 2004023226
                          Α1
                                 20040205
                                                                     20030305
PRAI DE 2000-10010376
                          Α
                                 20000228
     DE 2000-10053393
                          Α
                                 20001020
     WO 2001-DE812
                          W
                                 20010227
     The invention relates to a method for immobilizing nucleic acids on one of
AB
     the surfaces of a non-porous organic polymeric material which does not carry
     any primary and/or secondary amine groups. The inventive method comprises
     the following steps: (a) an aqueous solution containing a nucleic acid as well
     dissolved salt is prepared, whereby the cation of the salt is selected from
     the group comprised of sodium, magnesium and of mixts. of these cations;
     (b) the solution mentioned in step (a) is brought into contact with the
     surface of the polymeric material, and; (c) the surface of the polymeric
     material, which is in contact with the solution, is irradiated with UV light
     after step (b) or simultaneously. Nucleic acid probes are immobilized
     onto polymer fibers or chips; after the immobilization process the system
     is rinsed with a surfactant-containing solution
     ANSWER 18 OF 25 USPATFULL on STN
L5
       2001:199911 USPATFULL
ΑN
ΤI
       Integrated systems and methods for diversity generation and screening
IN
       Bass, Steven H., Hillsborough, CA, United States
       Davis, S. Christopher, San Francisco, CA, United States
       Patten, Phillip A., Menlo Park, CA, United States
       Tobin, Matthew, San Jose, CA, United States
       Minshull, Jeremy, Menlo Park, CA, United States
       Welch, Mark, Fremont, CA, United States
       Gustafsson, Claes, Belmont, CA, United States
       Carr, Brian, Fremont, CA, United States
       Jenne, Stephane, Burlingame, CA, United States
       Raillard, Sun Ai, Mountain View, CA, United States
       Crameri, Andreas, Reinach, Switzerland
       Stemmer, Willem P.C., Los Gatos, CA, United States
       Emig, Robin, Redwood City, CA, United States
       Longchamp, Pascal, East Palo Alto, CA, United States
       Goldman, Stanley, Walnut Creek, CA, United States
       Giver, Lorraine J., Santa Clara, CA, United States
       Affholter, Joseph A., Lake Village Zephyr Cove, NV, United States
PA
       Maxygen, Inc., Redwood City, CA, United States, 94063 (U.S. corporation)
PΙ
       US 2001039014
                          A1
                                20011108
       US 2001-760010
                                20010110 (9)
ΑI
                          A1
                            20000111 (60)
PRAI
       US 2000-175551P
       US 2000-213947P
                            20000623 (60)
       Utility
DT
FS
       APPLICATION
```

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LAW OFFICES OF JONATHAN ALAN QUINE, P O BOX 458, ALAMEDA, CA, 94501
LREP
       Number of Claims: 299
CLMN
       Exemplary Claim: 1
ECL
       40 Drawing Page(s)
DRWN
LN.CNT 8292
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Integrated systems and methods for diversity generation and screening
AB
       are provided. The systems use common fluid and array handling components
       to provide nucleic acid diversification, transcription, translation,
       product screening and subsequent diversification reactions.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 19 OF 25 USPATFULL on STN
1.5
       2000:31201 USPATFULL
AN
       Method for detection of non-denatured nucleic acid fragments
ΤI
       Ebersole, Richard C., Wilmington, DE, United States
ΙN
       Hendrickson, Edwin R., Hockessin, DE, United States
       Payne, Mark S., Wilmington, DE, United States
       Fitzpatrick-McElligott, Sandra, Rose Valley, PA, United States
       Majarian, William R., Mt. Royal, NJ, United States
       Rafalski, Jan A., Wilmington, DE, United States
       E. I. du Pont de Nemours and Company, Wimington, DE, United States (U.S.
PA
       corporation)
       US 6037127
                               20000314
PΙ
                               19971126 (8)
       US 1997-979269
ΑI
       Continuation-in-part of Ser. No. US 1997-863265, filed on 27 May 1997,
RLI
       now abandoned which is a continuation of Ser. No. US 1995-530795, filed
       on 20 Sep 1995, now abandoned which is a continuation of Ser. No. US
       1994-221769, filed on 31 Mar 1994, now abandoned
DT
       Utility
FS
       Granted
       Primary Examiner: Horlick, Kenneth R.
EXNAM
CLMN
       Number of Claims: 11
ECL
       Exemplary Claim: 1
       20 Drawing Figure(s); 13 Drawing Page(s)
DRWN
LN.CNT 2367
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A method for detecting the presence of a nucleic acid analyte in a test
       sample is provided in which a test sample is contacted with a test strip
       of a chromatographic bibulous porous material which is capable of moving
       the test sample laterally along the test strip by capillary migration to
       ultimate capture by a moiety in a specific capture zone.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L5
     ANSWER 20 OF 25 USPATFULL on STN
       2000:21384 USPATFULL
ΑN
       Methods and compositions for enhancing sensitivity in the analysis of
TΙ
       biological-based assays
       Ness, Jeffrey Van, Seattle, WA, United States
IN
       Tabone, John C., Bothell, WA, United States
       Howbert, J. Jeffry, Bellevue, WA, United States
       Mulligan, John T., Seattle, WA, United States
       Rapigene, Inc., Bothell, WA, United States (U.S. corporation)
PΑ
PΙ
       US 6027890
                               20000222
                               19970722 (8)
ΑI
       US 1997-898501
       Continuation-in-part of Ser. No. US 1997-787521, filed on 22 Jan 1997,
RLI
       now abandoned
       US 1996-10436P
                           19960123 (60)
PRAI
       US 1996-15402P
                           19960321 (60)
```

DT

Utility

FS Granted

EXNAM Primary Examiner: Houtteman, Scott W.

LREP Seed and Berry LLP
CLMN Number of Claims: 72
ECL Exemplary Claim: 1

DRWN 19 Drawing Figure(s); 19 Drawing Page(s)

LN.CNT 6333

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods are provided for detecting the binding of a first member to a second member of a ligand pair, comprising the steps of (a) combining a set of first tagged members with a biological sample which may contain one or more second members, under conditions, and for a time sufficient to permit binding of a first member to a second member, wherein said tag is correlative with a particular first member and detectable by non-fluorescent spectrometry, or potentiometry, (b) separating bound first and second members from unbound members, (c) cleaving the tag from the tagged first member, and (d) detecting the tag by non-fluorescent spectrometry, or potentiometry, and therefrom detecting the binding of the first member to the second member.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 21 OF 25 USPATFULL on STN

AN 1999:155449 USPATFULL

TI Methods for preparing solid supports for hybridization and reducing non-specific background

IN Van Ness, Jeffrey, Seattle, WA, United States

PA Rapigene, Inc., Bothell, WA, United States (U.S. corporation)

PI US 5994065 19991130 AI US 1996-733671 19961017 (8) PRAI US 1995-6501P 19951018 (60)

DT Utility FS Granted

EXNAM Primary Examiner: Marschel, Ardin H.

LREP Seed and Berry LLP
CLMN Number of Claims: 33
ECL Exemplary Claim: 1
DRWN No Drawings

LN.CNT 1281

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods related to solid supports for binding reactions are disclosed. The present invention provides procedures for prepaing solid supports, and their use in binding assays, such that non-specific background on the solid supports is reduced. The reduction of non-specific background permits the detection of low levels of specific binding which normally would be masked by the non-specific binding. The methods are applicable to a variety of target ligands and probes, including nucleic acids such as oligonucleotides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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L5 ANSWER 22 OF 25 USPATFULL on STN
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AN 1999:132581 USPATFULL

TI Gene detection method

IN Hashimoto, Koji, Yokohama, Japan Ito, Keiko, Kawasaki, Japan Ishimori, Yoshio, Tokyo, Japan

PA Kabushiki Kaisha Toshiba, Kawasaki, Japan (non-U.S. corporation)

PI US 5972692 19991026 AI US 1997-886161 19970630 (8)

RLI Division of Ser. No. US 1993-167113, filed on 16 Dec 1993, now patented, Pat. No. US 5776672 which is a continuation-in-part of Ser. No. US

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1991-766064, filed on 27 Sep 1991, now abandoned
       JP 1990-259011
                           19900928
PRAI
       JP 1991-90879
                           19910422
       JP 1991-191868
                           19910731
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Campbell, Eggerton A.
       Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
LREP
CLMN
       Number of Claims: 7
       Exemplary Claim: 1
ECL
DRWN
       10 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 3248
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A single stranded nucleic acid probe having a base sequence
       complementary to the gene to be detected is immobilized onto the surface
       of an electrode or the tip of an optical fiber, and the nucleic probe is
       reacted with the gene sample denatured to a single stranded form, and
       then the nucleic acid probe hybridized with the gene is detected. In
       this procedure, to the reaction system consisting of the nucleic acid
       probe and the gene sample, a double stranded nucleic acid recognizing
       substance capable of binding specifically to the double stranded nucleic
       acid and being active electrochemically or optically is added. The
       detection of the nucleic acid probe is conducted by electrochemical or
       optical determination utilizing the electrode or optical fiber mentioned
       above. By this method, safer and more convenient detection of the gene
       is possible at a higher sensitivity even in a reduced time period.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L5
     ANSWER 23 OF 25 USPATFULL on STN
AN
       1999:132501 USPATFULL
       Hybridization carrier and a process for preparing the same
ΤI
IN
       Furuichi, Yasuhiro, Kamakura, Japan
       Hikata, Mikio, Yokohama, Japan
       Kuribayashi, Keiko, Yokohama, Japan
       JSR Corporation, Tokyo, Japan (non-U.S. corporation)
PA
PΙ
       US 5972611
                               19991026
ΑI
       US 1997-964448
                               19971104 (8)
RLI
       Continuation of Ser. No. US 1996-662830, filed on 12 Jun 1996, now
       abandoned which is a continuation of Ser. No. US 1995-437910, filed on
       10 May 1995, now abandoned which is a continuation of Ser. No. US
       1993-3904, filed on 13 Jan 1993, now abandoned which is a continuation
       of Ser. No. US 1992-888409, filed on 21 May 1992, now abandoned which is
       a continuation of Ser. No. US 1991-674284, filed on 21 Mar 1991, now
       abandoned which is a continuation of Ser. No. US 1988-288601, filed on
       22 Dec 1988, now abandoned
PRAI
       JP 1987-329402
                           19871225
DT
       Utility
FS
       Granted
EXNAM
      Primary Examiner: Zitomer, Stephanie
       Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
LREP
       Number of Claims: 21
CLMN
ECL
       Exemplary Claim: 1
DRWN
       2 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 861
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AΒ
      A hybridization carrier, containing a single-stranded polynucleotide
      having the formula:
       5'-(dN).sub.n (dT).sub.m -3',
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wherein N represents admine, guanine or cytosin; T represents thymine; n

is an integer of 2 or larger; and m is an integer of 5 or larger;

the polynucleotide being immobilized by an amide bond on a surface of an organic polymers particle having a diameter of from about 0.05 μm to about 5 μm ;

the polynucleotide being immobilized at the site of a nucleotide sequence consisting of 2 or more polynucleotide which contain a primary amino residue in the polynucleotide; and

the amide bond having been formed between the primary amino residue and a carboxyl residue on the surface of the organic polymer particle.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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L5
     ANSWER 24 OF 25 USPATFULL on STN
AN
       1998:78923 USPATFULL
ΤI
       Gene detection method
       Hashimoto, Koji, Yokohama, Japan
TN
       Ito, Keiko, Kawasaki, Japan
       Ishimori, Yoshio, Tokyo, Japan
       Gotoh, Masanori, Tokyo, Japan
PA
       Kabushiki Kaisha Toshiba, Kawasaki, Japan (non-U.S. corporation)
PΙ
       US 5776672
                               19980707
AΙ
       US 1993-167113
                               19931216 (8)
       Continuation-in-part of Ser. No. US 1991-766064, filed on 27 Sep 1991
RLI
PRAI
       JP 1990-259011 19900928
       JP 1991-90879
                           19910422
       JP 1991-191868
                           19910731
DT
       Utility
       Granted
FS
EXNAM Primary Examiner: Campbell, Eggerton A.
       Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
LREP
       Number of Claims: 9
CLMN
ECL
       Exemplary Claim: 1
       10 Drawing Figure(s); 5 Drawing Page(s)
DRWN
LN.CNT 3246
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

As single stranded nucleic acid probe having a base sequence complementary to the gene to be detected is immobilized onto the surface of an electrode or the tip of an optical fiber, and the nucleic probe is reacted with the gene sample denatured to a single stranded form, and then the nucleic acid probe hybridized with the gene is detected. In this procedure, to the reaction system consisting of the nucleic acid probe and the gene sample, a double stranded nucleic acid recognizing substance capable of binding specifically to the double stranded nucleic acid and being active electrochemically or optically is added. The detection of the nucleic acid probe is conducted by electrochemical or optical determination utilizing the electrode or optical fiber mentioned above. By this method, safer and more convenient detection of the gene is possible at a higher sensitivity even in a reduced time period.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

- L5 ANSWER 25 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN DUPLICATE 2
- AN 1986:339728 BIOSIS
- DN PREV198682053932; BA82:53932
- TI A RAPID ELISA FOR MEASUREMENT OF ANTIBODIES TO NUCLEIC-ACID ANTIGENS USING UV-TREATED **POLYSTYRENE** MICROPLATES.
- AU ZOUALI M [Reprint author]; STOLLAR B D
- CS TUFTS UNIV HEALTH SCI CAMPUS, DEP BIOCHEM AND PHARMACOL, BOSTON, MASS

02111, USA

- SO Journal of Immunological Methods, (1986) Vol. 90, No. 1, pp. 105-110. CODEN: JIMMBG. ISSN: 0022-1759.
- DT Article
- FS BA
- LA ENGLISH
- ED Entered STN: 22 Aug 1986 Last Updated on STN: 22 Aug 1986
- AB Pretreatment of polystyrene microplate wells with certain doses of UV light enhances their capacity for binding to single-stranded DNA, double stranded DNA and various synthetic polynucleotides. The use of UV-irradiated plates to immobilize nucleic acid antigens provides a simple, rapid, and specific ELISA for measuring anti-nucleic acid antibodies. The assay is at least as sensitive as the more complex method of precoating plates with poly(L-lysine). It is useful for detection of anti-DNA antibodies in sera of systemic lupus erythematosus patients, as well as in culture fluids of murine and human anti-DNA-secreting hybridomas.